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July 8, 1996

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

RE: Implementation of the Local Competition Provisions In the Telecommunications Act of 1996, Supplemental Comment Period, CC Docket No. 96-98.

Dear Mr. Caton:

Pursuant to the Public Notice released June 20, 1996 in the above captioned matter and sections 1.415 and 1.419 of the Commission's Rules, attached please find an original and 4 copies of the Comments of the Ad Hoc Telecommunications Users Committee. Please date stamp the additional copy and return it with our messenger.

If you have any questions regarding this filing, please do not hesitate to call.

Sincerely,

Colleen Boothby

Colleen Boothby

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)	CC Docket No. 96-98

COMMENTS OF AD HOC
TELECOMMUNICATIONS USERS COMMITTEE

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SUMMARY

The Ad Hoc Telecommunications Users Committee ("Ad Hoc" or "Committee") supports the Commission's efforts to develop an economic model of the telecommunications industry and would encourage the use of valid modeling techniques to analyze the issues under consideration in this docket. The released version of the staff Model is inadequate for this purpose, however, because of a number of significant defects, which are described in the pleading that follows. Moreover, the Commission's abbreviated comment period for a model of this size and complexity has prevented interested parties from performing the comprehensive review and analysis required to identify the deficiencies and corrections that would ensure the Model's accuracy and reliability. Accordingly, before the Commission attempts to use the Model in this docket or any other, the Commission must dedicate the internal resources required to correct and refine the Model, collect necessary additional data, and provide the time and opportunity for adequate public review.

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COMMENTS OF THE AD HOC TELECOMMUNICATIONS USERS COMMITTEE

DISCUSSION

On June 20, 1996, the Commission requested comment by July 1, 1996[1] on a staff model of the telecommunications industry, released jointly by the Industry Analysis Division of the Common Carrier Bureau and the Competition Division of the Office of the General Counsel ("Initial Staff Model").

The Ad Hoc Telecommunications Users Committee ("Ad Hoc" or "Committee") commends the Commission for beginning work on the complex task of modeling the potential impacts of impending changes in telecommunications markets. Nevertheless, the initial release of the Staff Model is far too preliminary to rely on for decisions in the instant docket. Ad Hoc's cursory

[1] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Supplemental Comment Period Established*, CC Docket No. 96-98, Public Notice, released June 20, 1996; *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Supplemental Comment Period Extended*, CC Docket No. 96-98, Public Notice, released June 25, 1996

review of the Initial Staff Model reveals that, while it represents a commendable start, it raises more questions than it answers in its present form.

The discussion below identifies a number of shortcomings that the Committee has been able to identify in the brief time period since the Initial Staff Model was made available to the general public. Our analysis is by no means an in-depth, top-to-bottom assessment of the various elements of the Initial Staff Model or of the approach it employs in simulating future industry conditions. The Committee would prefer to offer a more comprehensive review, including solutions to the problems we identify below. The abbreviated time frame within which we were required to file comments, however, combined with the lack of documentation or detailed explanation of the Initial Staff Model's operation, algorithms, assumptions, and underlying data sources, has necessarily limited our ability to fully examine the Initial Staff Model at this time.

I. USE OF THE MODEL IN THIS DOCKET WOULD BE PREMATURE

As detailed in the following paragraphs, the Initial Staff Model is not yet a reliable tool for Commission decision-making in this docket.

A. The Commission's Comment Schedule Has Denied Interested Parties Sufficient Time To Verify The Model's Approach And Results.

The necessary complexity of a model of this type requires reliance upon a vast body of data and assumptions, the validity of which must be ascertained before any credence can be given to the results. Unfortunately, because of the fast track that the 1996 Act has forced upon this proceeding, the time required to

validate the Model, and the reasonableness of its assumptions and inputs, is simply not available to the Commission. Nevertheless, the Initial Staff Model, while specific and detailed, resembles virtually all models of complex economic systems -- it is neither scientific nor exact and it must rely heavily upon assumptions as to how industry participants will behave in the future. Thus, any results obtained from this Model will be no more reliable than the inputs and the assumptions that were used to produce the various runs. In order to verify the reasonableness of those, the Commission must provide additional, significant time for public comment and review of the Model.

B. The Commission Has Not Disclosed Sufficient Data And Documentation To Evaluate The Initial Staff Model

Before it can be used, the Initial Staff Model must be properly documented. The documentation must begin with an identification of the questions the Model is attempting to address, the parameters its designers have attempted to model, any assumptions inherent in the Model, a list of sources used to provide the data that is hard-wired into the Model, the user-specifiable variables, and the inputs the Commission would use when it exercises the Model.

1. Identification Of Questions To Be Addressed

The documentation currently provided by the Commission does not include an identification of the questions addressed by the Model. Although the output screens of the Model appear to examine issues such as consumer

welfare and ILEC and CLEC profitability, the scope of questions the Model is designed to answer is not at all apparent.

2. Specification of Model Parameters

The documentation also does not include a specification of the Model's parameters. It appears that the Initial Staff Model attempts to capture a wide variety of factors, including, for example, the role that spare capacity may play in the future cost structure of the ILECs, pricing and expense reductions that the ILECs may make in the face of competition, and additional marketing expenses that the ILECs may choose to incur in the face of competition. It appears that the Initial Staff Model does not attempt to capture any dynamic efficiency gains that may result from the introduction of competition, or any alternative network architectures that may be employed, although without any documentation of the parameters, it is difficult to ascertain exactly what has been modeled and what has not.

3. Inherent Assumptions

Similarly, the documentation does not identify the assumptions inherent in the Model. The results of the Initial Staff Model are directly tied to a number of assumptions that are not modeled at all -- some of these assumptions are clearly identified for the user to manipulate; others are not. For example, analysis of the formula in a line item identified as "Panic expense Reductions" reveals a hard-wired assumption that earnings of less than 7.5% will cause the ILECs to begin to reduce expenses. The Model allows the user to specify the maximum amount

by which those expenses can be reduced each year, but includes a hard-wired calculation which assumes a limit on expense reductions (*viz.*, until the maximum amount is reached, expenses will be reduced by one fourth of the difference between the forecast earnings and the assumed 7.5% threshold.) The documentation associated with the Model does not identify this assumption nor describe a basis for it.

4. Sources of Hard-Wired Data

The Commission must specify the sources of the data that is hard-wired into the Model, not only to enable commentors to evaluate and comment upon the Model but in order for the Commission to understand any results that the Model may generate. For example, "Price Elasticities" are an understandably crucial component of a model of this type, and the Initial Staff Model does in fact use Price Elasticities in developing forecasts. The Price Elasticity values are found on numbered line items 52-57 of the "Model Specifications." The documentation does not specify whether the Price Elasticities found in the "Model Specifications" are hard-wired values that should not be adjusted (and, if they are, what the source of those price elasticities is) or whether those are specifications that the user of the Model should adjust.

5. User-Specifiable Variables

The Model documentation fails to include an identification of all user-specifiable variables with a description of the use to which those variables will be put. For example, numbered line item 131 in the "Model Specifications" sheet

requires that the user identify what is described as "Annual change in embedded cost before inflation (LEC, IXC & CLEC)." Further into the Model, in a component that forecasts baseline expenses (used in part to calculate the earnings of the ILECs), the value from numbered line item 131 is used and identified as "Special LEC Productivity Adjustment." The Model's documentation did not identify this user-specifiable variable and the use to which it would be put.

6. Inputs To Be Used When Running The Model

In the form in which it was presented to the public for comment, that is, with most of the user-specifiable inputs left blank, it is impossible to glean any insight into whether the results of the modeling exercise will prove useful. As an example,[2] crucial to any results that will be generated by the Initial Staff Model is the assumed cost to the ILECs of providing additional service (both loops and minutes). The Initial Staff Model, as released for review, has a dummy value of $19.19 for the current incremental cost ("CIC") of additional loops ("Model Specifications" numbered line item 99) and $0 1919 for the CIC of additional access minutes (numbered line item 101) As the ongoing debate in Docket 96-45[3] on the Benchmark Cost Model amply demonstrates, identification of incremental loop costs is a highly contentious and difficult process with widely

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[2] This example is only one of many too numerous to list.

[3] *Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, Notice of Proposed Rulemaking And Order Establishing Joint Board, released March 8, 1996.

varying beliefs as to what those costs actually are.[4] A loop cost of $10 per month will clearly produce a dramatically different result than a loop cost of $100, yet no indication of the loop cost that will be used is provided. The CIC of access minutes is not likely to be any easier to determine than the CIC of loops and, to the best of our knowledge, there is not even any ongoing industry debate at this time before the Commission as to what that number might be.[5]

C. The Initial Staff Model Displays Significant Conceptual Shortcomings That Must Be Addressed For Reliable Model Results

The Model's underlying design reflects omissions and data preferences that virtually guarantee biased results. As discussed above, it appears that the Model attempts to incorporate a wide variety of factors that will impact the overall profitability of the various industry participants. It does not, however, appear to recognize, much less model, any dynamic efficiency gains that can be expected from the development of competition. Yet a fundamental premise underlying Congress' and this Commission's decision to actively promote the entry and development of competition in telecommunications markets is the belief that such dynamic efficiency gains will result. Indeed, if such dynamic gains were *not* forthcoming, the policy justification for abandoning the traditional regulated monopoly paradigm would be undermined, if not eliminated, given the static

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[4] Aside from the actual identification of the cost to be used, even the use of the term "Current Incremental Cost" in the Initial Staff Model raises questions and concerns as to why TSLRIC costs are not being used.

[5] There is, however, little doubt that the actual cost per minute is a small fraction of the $0.1919 that the model as distributed has employed, probably in the range of $0.005.

efficiencies arising from the economies of scale and scope that characterize ILEC production processes. Therefore, any comprehensive attempt to examine and simulate future industry conditions must include an adjustment for competition's stimulation of both incumbents and new entrants to operate more efficiently (*i.e.*, reduce their costs of doing business) and to introduce new products and services that are capable of bringing significant additional value to the economy as a whole. While it is possible that such gains are in fact represented somewhere in the Model, they certainly are not explicitly identified or available for modification by the user.

Even a cursory review of the Model reveals its strong concern with capturing those industry changes that would result in lower ILEC earnings (*e.g.*, cost increases that may result from the introduction of competition, as well as revenue decreases that may result from a loss of ILECs market share) with no corresponding attention to efficiency gains or potential revenue enhancements that arise as a result of the discipline of a competitive marketplace.

In addition, the Model does not evenly treat expenses and revenues relative to productivity adjustments. The Model appears to attempt to account for the impact of increasing productivity in the telecommunications industry through the use of three separate adjustments. The first appears to internally generate "productivity" estimates that one would presume are used in the forecasting of future expense levels. These productivity calculations, identified as the "Spavins-Lande" Index, are performed on Sheet D of the Model. While the

"Spavins-Lande" result is presumably used somewhere in the Model, these results are not applied to the forecasting of embedded expense levels. A second "productivity" adjustment, one that the user inputs into the line item numbered 131, "Annual change in embedded cost before inflation," (later identified as "Special LEC Productivity Adjustment")[6] is applied to embedded expenses. A third factor, designed to account for the impact of the FCC's price caps "X factor," is used to forecast LEC revenues. Although in theory the FCC's X factor should be equivalent to the expense reductions that the LECs experience because of productivity enhancements, the application of three separate factors, one of which is hard-wired (the price caps X factor), one of which is internally generated (the Spavins-Lande Index),[7] and one that is user-specified, ensures that revenues and expenses will not be treated equivalently. A far better approach would be one that assumes that the X factor adopted by the Commission is representative of the productivity experienced by the industry -- meaning the revenues and expenses would both be subjected to the same productivity adjustment. Any other treatment seems to be an implicit statement that the Commission-adopted X factor is improperly set.

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[6] *See* discussion at § 2(e), *supra*.

[7] The use of the Spavins-Lande Index at all raises a number of questions, given that the Commission specifically acknowledged in its price caps rulemaking the weaknesses of the former Spavins-Lande productivity study, on which the Spavins-Lande Index appears to be based. *See Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, First Report and Order, 10 FCC Rcd 8961 at para. 216, (1995)

Perhaps the most fundamental shortcoming of the Model is its relatively static view of the structure and configuration of network technologies. Although the Model is designed to allow changes in network use to be reflected (*e.g.*, by allowing specification of differing growth rates for different categories of service), it does not appear to contemplate variations in the network architecture by which services may be provisioned. The result of this shortcoming is two-fold. First, exclusion of the possibility of alternate, lower cost, configurations could result in an excessively pessimistic view of the future earning potential of ILECs facing competition. Second, exclusion of alternate configurations at this stage may in fact limit Commission evaluations of the benefits that may potentially be derived from implementing some of those solutions.

To illustrate the impact of this conceptual omission, consider the following scenario. The use of data services for Internet access, telecommuting, and online services continues to grow. The ILECs have already complained that such usage negatively affects their cost structures because of additional switching capacity demand. The Model is capable of incorporating into its results the costs attendant to a high level of growth for this type of usage. But one possible response to the growth of such data usage would be for the ILECs, or niche competitors, to intercept and separately process data traffic before it ever gets to the switch, *e.g.*, through the use of XDSL technology and unbundled loops. The result would be decreased demand for switch capacity with no corresponding decrease in telephony demand. Despite the current technological

viability of such scenarios, the Model does not appear capable of accommodating such an alternative network configuration in its forecast of the costs and benefits to be expected in the future. To be truly useful, the Model must be made more flexible in its view of how the public switched network is likely to be used and the costs therefor

II. THE COMMISSION MUST PROVIDE ADEQUATE NOTICE AND ADDITIONAL OPPORTUNITIES FOR COMMENT

The Commission's truncated pleading cycle for a model with the size and complexity of the Initial Staff Model has denied interested parties and the Commission the benefits of comprehensive reviews and critiques to ensure that the Model is accurate and reliable by other industry observers. Accordingly, before the Commission can use the Model in the interconnection proceeding or any other, the Commission must provide interested members of the public with the time and opportunity to adequately review the Model.

Third party review of the Model permits an in-depth, top-to-bottom assessment of the various elements and approach in the Model. The abbreviated time frame within which parties were required to file the instant comments, combined with the lack of documentation or detailed explanation of the Model's operation, algorithms, assumptions, and underlying data sources, has prevented parties from fully examining the Model and offering a more comprehensive review, including solutions to the problems identified in the paragraphs above.

Therefore, the Commission should first revise the Model in response to the critiques produced in this initial round of comments. The Commission must then make both the Model and its documentation available for a sufficient period of time to permit substantive analysis and to obtain corrections and improvements from interested parties. The Commission must establish at least one additional pleading cycle (and probably more) to permit parties to share the fruits of their analyses on the record and must refine the Model accordingly.

CONCLUSION

The Ad Hoc Committee applauds the Commission's efforts to use economic modeling techniques to analyze the complex economic issues raised by the 1996 Telecommunications Act. The Initial Staff Model is a commendable step in the right direction, even if it is not yet ready for prime time. Further analysis and opportunities for comment on the record is required before the Commission can reasonably rely on the Model as an accurate and probative decision-making tool.

Respectfully submitted,

AD HOC TELECOMMUNICATIONS USERS COMMITTEE

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July 8, 1996

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Certificate of Service

I, Andrew Baer, hereby certify that true and correct copies of the preceding Supplemental Comments of the Ad Hoc Telecommunications Users Committee for Local Competition Provisions in the Telecommunications Act of 1996 regarding the Staff Industry Demand & Supply Simulation Model, CC Docket No. 96-98, were served this 8th day of July, 1996, via hand delivery upon the following:

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July 8, 1996

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